

# Perception & Psychophysics

Charles W. Eriksen, *Editor*  
*University of Illinois, Urbana-Champaign*

## *Associate Editors*

Edward C. Carterette  
*University of California, Los Angeles*  
Robert Fox  
*Vanderbilt University*  
Alfred B. Kristofferson  
*McMaster University*

Herschel W. Leibowitz  
*Pennsylvania State University*  
David Pisoni  
*Indiana University, Bloomington*  
Martha Teghtsoonian  
*Smith College*

## *Consulting Editors*

Lorraine Allan, *McMaster University*  
William P. Banks, *Pomona College*  
Linda M. Bartoshuk, *J. B. Pierce Foundation, Yale University*  
Ira H. Bernstein, *University of Texas, Arlington*  
Elizabeth L. Bjork, *University of California, Los Angeles*  
Randolph Blake, *Northwestern University*  
John Lott Brown, *University of South Florida*  
Emanuel Donchin, *University of Illinois, Champaign*  
S. M. Ebenholtz, *University of Wisconsin, Madison*  
Howard E. Egeth, *Johns Hopkins University*  
Trygg Engen, *Brown University*  
William Epstein, *University of Wisconsin, Madison*  
Barbara A. Eriksen, *University of Illinois, Champaign*  
Wendell R. Garner, *Yale University*  
Barbara Gillam, *SUNY, State College of Optometry*  
Walter C. Gogel, *University of California, Santa Barbara*  
David M. Green, *Harvard University*

Lewis O. Harvey, Jr., *University of Colorado*  
James E. Hoffman, *University of Delaware*  
Tarow Indow, *Keio University, Tokyo*  
John Jonides, *University of Michigan*  
Ronald Kinchla, *Princeton University*  
Sylvan Kornblum, *University of Michigan*  
Joseph S. Lappin, *Vanderbilt University*  
Willard D. Larkin, *University of Maryland*  
Barry Leshowitz, *Arizona State University*  
Gregory R. Lockhead, *Duke University*  
Dominic Massaro, *University of Wisconsin, Madison*  
James L. McClelland, *University of California, San Diego*  
W. Trammell Neill, *University of South Florida*  
Ray Over, *University of Queensland, Australia*  
Robert W. Sekuler, *Northwestern University*  
Keith White, *University of Florida*  
Eugene R. Wist, *Franklin and Marshall College*

Anne Matson Dossett  
*Managing Editor*

## Volume 27

---

*Published monthly by*  
**THE PSYCHONOMIC SOCIETY, Inc.**, 1108 West 34th Street, Austin, Texas 78705  
*Publication No. 427920 (ISSN 0031-5117)*  
*Second Class Postage paid at Austin, Texas 78710*  
*Copyright 1980 by THE PSYCHONOMIC SOCIETY, Inc.*

#### **STAFF IN CHAMPAIGN**

Gitta Bridges

#### **STAFF IN AUSTIN**

Kristine A. Cummings  
Valerie K. Foster  
Barbara Gregg  
Dreanne M. Grenier  
Virginia T. Hagerty  
John J. Hartzell, Jr.  
E. Melanie W. Kittrell  
Patricia J. Kittrell  
Patricia E. Plowman  
Mary K. Plowman  
Robert P. Sanford  
Sharon Tarver  
Roberta Thiessen  
Rodney G. Webre  
C. E. Wheelless

# CONTENTS OF VOLUME 27

Babkoff, H. Dichotic temporal interactions: Nonmonotonic discrimination function. . . .	273	DeVido, C. J. See Stitt, C. L.	
Banks, W. P., & Barber, G. Normal iconic memory for stimuli invisible to the rods. . . .	581	Diehl, R. L., Souther, A. F., & Convis, C. L. Conditions on rate normalization in speech perception . . . . .	435
Barber, G. See Banks, W. P.		Dusoir, A. E. Some evidence on additive learning models . . . . .	163
Barnes, R. D. See Streibel, M. J.		Ebenholtz, S. M. See Streibel, M. J.	
Benignus, V. A., & Prah, J. D. Flow thresholds of nonodorous air through the human naris as a function of temperature and humidity . .	569	Edwards, R. S. See Poulton, E. C.	
Bertelson, P. See Morais, J.		Egeth, H. E. See Francolini, C. M.	
Blake, R., Breitmeyer, B., & Green, M. Contrast sensitivity and binocular brightness: Dioptic and dichoptic luminance conditions .	180	Egeth, H. E. See Santee, J. L.	
Blake, R., Martens, W., Garrett, A., & Westendorf, D. Estimating probability summation for binocular reaction time data. . . .	375	Elman, J. L. Intonation-contingent adaptation to speech . . . . .	258
Blake, R. See Martens, W.		Erickson, D. M. See Fitch, H. L.	
Bogartz, R. S. Some functional measurement procedures for determining the psychophysical law . . . . .	284	Evans, P. See Lovegrove, W.	
Bowen, R. W., & Markell, K. A. Temporal brightness enhancement studied with a large sample of observers: Evidence for individual differences in brightness perception . . . . .	465	Farmer, E. W., & Taylor, R. M. Visual search through color displays: Effects of target-background similarity and background uniformity . . . . .	267
Bowling, A., & Lovegrove, W. The effect of stimulus duration on the persistence of gratings . . . . .	574	Fitch, H. L., Halwes, T., Erickson, D. M., & Liberman, A. M. Perceptual equivalence of two acoustic cues for stop-consonant manner	343
Bowling, A. See Lovegrove, W.		Fowler, C. A. See Tuller, B.	
Braunstein, M. L., & Stern, K. R. Static and dynamic factors in the perception of rotary motion . . . . .	313	Fowler, T. J. See Poulton, E. C.	
Breitmeyer, B. See Blake, R.		Fox, R. See Staller, J. D.	
Brooke, J. B., & MacRae, A. W. Error patterns in judgment and production of horizontal and vertical scale positions. . . . .	295	Francolini, C. M., & Egeth, H. E. On the non-automaticity of "automatic" activation: Evidence of selective seeing . . . . .	331
Bumberry, J. See Salthouse, T. A.		Frijters, J. E. R., Kooistra, A., & Vereijken, P. F. G. Tables of d' for the triangular method and the 3-AFC signal detection procedure. . . . .	176
Carello, C. See Mark, L. S.		Garrett, A. See Blake, R.	
Cary, L. See Morais, J.		Geyer, L. H. See Gupta, S. M.	
Coltheart, M. Iconic memory and visible persistence . . . . .	183	Gold, F. M. See Lockhead, G. R.	
Convis, C. L. See Diehl, R. L.		Gomez, L. M. See Robertson, L. C.	
Costall, A. See Riley, D.		Goolkasian, P. Cyclic changes in pain perception: An ROC analysis . . . . .	499
Curtis, D. W., & Rule, S. J. Fechner's paradox reflects a nonmonotone relation between binocular brightness and luminance . . . . .	263	Green, D. M., Luce, R. D., & Smith, A. F. Individual magnitude estimates for various distributions of signal intensity . . . . .	483
Cutting, J. E. See Remez, R. E.		Green, M. See Blake, R.	
Day, R. H., & Jory, M. K. A note on a second stage in the formation of illusory contours . .	89	Gupta, S. M., & Geyer, L. H. On tactile and visual recognition . . . . .	579
Derr, M. A., & Massaro, D. W. The contribution of vowel duration, F <sub>0</sub> contour, and frication duration as cues to the /juz/-/jus/ distinction . . . . .	51	Halwes, T. See Fitch, H. L.	
		Hardzinski, M., & Pachella, R. G. The manipulation of stimulus quality and the definition of stimulus encoding operations in memory scanning experiments . . . . .	232
		Harter, M. R. See Towle, V. L.	
		Harwerth, R. S., Smith, E. L., III, & Levi, D. M. Suprathreshold binocular interactions for grating patterns. . . . .	43

- Heller, M. A. **Tactile retention: Reading with the skin** ..... 125
- Hines, H. See Mark, L. S.
- Hoffman, H. S. See Stitt, C. L.
- Hollins, M. **The effect of contrast on the completeness of binocular rivalry suppression** ... 550
- Hopkins, G. W., & Kristofferson, A. B. **Ultra-stable stimulus-response latencies: Acquisition and stimulus control** ..... 241
- Howell, P. **Vowel-contingent feature detection** ..... 37
- Inhoff, A. W., & Rayner, K. **Parafoveal word perception: A case against semantic processing** ..... 457
- Johnson, R. C. See Lockhead, G. R.
- Johnston, M. B. See Salthouse, T. A.
- Jordan, K. See Uhlarik, J.
- Jory, M. K. See Day, R. H.
- Julness, G. D. See Streibel, M. J.
- Kaess, D. W. **Instructions and decision times of size-constancy responses** ..... 477
- Kleinman, D. See Wastell, D. G.
- Kolditz, T. A. See Salthouse, T. A.
- Kooistra, A. See Frijters, J. E. R.
- Kowler, E., & Sperling, G. **Transient stimulation does not aid visual search: Implications for the role of saccades** ..... 1
- Kristofferson, A. B. **A quantal step function in duration discrimination** ..... 300
- Kristofferson, A. B. See Hopkins, G. W.
- Lappin, J. S. See Staller, J. D.
- Lester, C. F. See Redding, G. M.
- Levi, D. M. See Harwerth, R. S.
- Lieberman, A. M. See Fitch, H. L.
- Lockhead, G. R., Johnson, R. C., & Gold, F. M. **Saltation through the blind spot** ..... 545
- Lovegrove, W., & Evans, P. **Color-selective adaptation in contrast thresholds for detecting the form but not the motion in moving gratings** ..... 585
- Lovegrove, W., Mapperson, B., & Bowling, A. **Presence and absence of color selectivity in the motion aftereffect** ..... 33
- Lovegrove, W. See Bowling, A.
- Luce, R. D. See Green, D. M.
- MacRae, A. W. See Brooke, J. B.
- Mapperson, B. See Lovegrove, W.
- Mark, L. S., Pittenger, J. B., Hines, H., Carello, C., Shaw, R. E., & Todd, J. T. **Wrinkling and head shape as coordinated sources of age-level information** ..... 117
- Markell, K. A. See Bowen, R. W.
- Marks, L. E. **Binaural summation of loudness: Noise and two-tone complexes** ..... 489
- Marks, L. E. See Stevens, J. C.
- Martens, W., & Blake, R. **Uncertainty impairs grating detection performance in the cat** .... 229
- Martens, W. See Blake, R.
- Massaro, D. W. See Derr, M. A.
- Mikaelian, H. H. **Effective luminance contrast as a parameter in contingent aftereffects** .... 531
- Misceo, G. See Uhlarik, J.
- Moffitt, K. **Evaluation of the fixation duration in visual search** ..... 370
- Morais, J., Cary, L., Vanhaelen, H., & Bertelson, P. **Postural determinants of frontal-position advantage in listening to speech** ..... 141
- Newsome, S. L. See Paap, K. R.
- Nusbaum, H. C. See Sawusch, J. R.
- O'Harz, W. P. **Evidence in support of word unitization** ..... 390
- O'Leary, A., & Wallach, H. **Familiar size and linear perspective as distance cues in stereoscopic depth constancy** ..... 131
- O'Leary, A., & Wallach, H. **Adaptation in stereoscopic depth constancy** ..... 403
- Osaka, N. **Brightness exponent as a function of retinal eccentricity in the peripheral visual field: Effects of dark and light adaptation** ... 519
- Paap, K. R., & Newsome, S. L. **A perceptual-confusion account of the WSE in the target search paradigm** ..... 444
- Pachella, R. G. See Hardzinski, M.
- Pantle, A. J., & Petersik, J. T. **Effects of spatial parameters on the perceptual organization of a bistable motion display** ..... 307
- Petersik, J. T. **Rotation judgments and depth judgments: Separate or dependent processes?** 588
- Petersik, J. T. See Pantle, A. J.
- Pittenger, J. B. See Mark, L. S.
- Pollatsek, A. See Rayner, K.
- Poulton, E. C., Edwards, R. S., & Fowler, T. J. **Eliminating subjective biases in judging the loudness of a 1-kHz tone** ..... 93
- Prah, J. D. See Benignus, V. A.
- Prather, P. See Swinney, D. A.
- Previc, F. H. See Towle, V. L.
- Pringle, R. See Uhlarik, J.
- Rayner, K., Well, A. D., & Pollatsek, A. **Asymmetry of the effective visual field in reading** ..... 537
- Rayner, K. See Inhoff, A. W.
- Redding, G. M., & Lester, C. F. **Achromatic color matching as a function of apparent target orientation, target and background luminance, and lightness or brightness instructions** 557
- Remez, R. E. **Susceptibility of a stop consonant to adaptation on a speech-nonspeech continuum: Further evidence against feature detectors in speech perception** ..... 17
- Remez, R. E., Cutting, J. E., Studdert-Kennedy, M. **Cross-series adaptation using song and string** ..... 524
- Riley, D., & Costall, A. **Comments on "Recognition of faces in the presence of two-dimen-**

sional sinusoidal masks" by Tieger and Ganz	373	ment: The variable role of uncertainty about vowel contexts . . . . .	104
Robertson, L. C., & Gomez, L. M. Figural vs. configural effects in the filled duration illusion . . . . .	111	Tartter, V. C. Happy talk: Perceptual and acoustic effects of smiling on speech . . . . .	24
Ross, L. E., & Ross, S. M. Saccade latency and warning signals: Stimulus onset, offset, and change as warning events . . . . .	251	Taylor, R. M. See Farmer, E. W.	
Ross, S. M. See Ross, L. E.		Todd, J. T. See Mark, L. S.	
Rule, S. J. See Curtis, D. W.		Towle, V. L., Harter, M. R., & Previc, F. H. Binocular interaction of orientation and spatial frequency channels: Evoked potentials and observer sensitivity . . . . .	351
Salthouse, T. A., Kolditz, T. A., Bumberry, J., & Johnston, M. B. An illusion of ingestion . .	564	Tuller, B., & Fowler, C. A. Some articulatory correlates of perceptual isochrony . . . . .	277
Santee, J. L., & Egeth, H. E. Interference in letter identification: A test of feature-specific inhibition . . . . .	321	Uhlarik, J., Pringle, R., Jordan, K., & Misceo, G. Size scaling in two-dimensional pictorial arrays . . . . .	60
Sawusch, J. R., Nusbaum, H. C., & Schwab, E. C. Contextual effects in vowel perception II: Evidence for two processing mechanisms .	421	Vanhaelen, H. See Morais, J.	
Schiepers, C. Response latency and accuracy in visual word recognition . . . . .	71	Vereijken, P. F. G. See Frijters, J. E. R.	
Schwab, E. C. See Sawusch, J. R.		Wallach, H. See O'Leary, A. (2)	
Shaw, R. E. See Mark, L. S.		Warren, D. H. Response factors in intermodality localization under conflict conditions . . .	28
Shum, K. H. See Wolford, G.		Wastell, D. G., & Kleinman, D. A psychoanatomical investigation of the locus of the mechanism responsible for the refractoriness of the visual vertex potential . . . . .	149
Singer, M. H. The primacy of visual information in the analysis of letter strings . . . . .	153	Well, A. D. See Rayner, K.	
Smith, A. F. See Green, D. M.		Wenderoth, P. Dot displacements can be deceptive: A reply to Hartley . . . . .	368
Smith, E. L., III. See Harwerth, R. S.		Wenderoth, P. Alignment errors in Poggendorff-like displays when the variable segment is a dot, a dot series, or a line . . . . .	505
Souther, A. F. See Diehl, R. L.		Westendorf, D. See Blake, R.	
Sperling, G. See Kowler, E.		Wolford, G., & Shum, K. H. Evidence for feature perturbations . . . . .	409
Staller, J. D., Lappin, J. S., & Fox, R. Stimulus uncertainty does not impair stereopsis . .	361	Yost, W. A. Comment on "Auditory frequency sensitivity of human newborns: Some data with improved acoustic and behavioral controls" . . . . .	179
Stern, K. R. See Braunstein, M. L.			
Stevens, J. C., & Marks, L. E. Cross-modality matching functions generated by magnitude estimation . . . . .	379	Announcements	
Stitt, C. L., Hoffman, H. S., & DeVido, C. J. Modification of the human glabella reflex by antecedent acoustic stimulation . . . . .	82	Symposium on Aging and Human Visual Function . . . . .	92
Streibel, M. J., Barnes, R. D., Julness, G. D., & Ebenholtz, S. M. Determinants of the rod-and-frame effect: Role of organization and subjective contour . . . . .	136	Fifth Annual Boston University Conference Language Development . . . . .	276
Studdert-Kennedy, M. See Remez, R. E.			
Swensson, R. G. A two-stage detection model applied to skilled visual search by radiologists .	11		
Swinney, D. A., & Prather, P. Phonemic identification in a phoneme monitoring experi-			

## ACKNOWLEDGMENTS

We would like to express our sincere thanks to the special consultants, listed below, who have given freely of their time and counsel.

- Edward Adelson, *University of Michigan*  
 Jacob Beck, *University of Oregon*  
 Michelle A. Blank, *Indiana University at Bloomington*  
 H. Bouma, *Institute for Perception Research, Eindhoven, The Netherlands*  
 Myron Braundstein, *University of California, Irvine*  
 Bruce Bridgeman, *University of California, Santa Cruz*  
 R. M. Butler, *University of Chicago*  
 R. A. Cole, *Carnegie Mellon University*  
 Max Coltheart, *University of London*  
 Stanley Coren, *University of British Columbia*  
 Robert H. Cormack, *New Mexico Tech*  
 Boris Crasini, *University of Queensland*  
 David V. Cross, *SUNY, Stony Brook*  
 Peter Dallos, *Northwestern University*  
 Diana Deutsch, *University of California, San Diego*  
 Vincent DiLollo, *University of Manitoba*  
 Peter Dodwell, *Queen's University, Kingston*  
 D. D. Dorfman, *University of Iowa*  
 Michael Dorman, *Arizona State University*  
 W. J. Dowling, *University of Texas at Dallas*  
 Lois L. Elliott, *Northwestern University*  
 William K. Estes, *Rockefeller University*  
 J.-C. Falmagne, *New York University*  
 Donald J. Foss, *University of Texas at Austin*  
 Carol A. Fowler, *Dartmouth College*  
 Paul Fraise, *René Descartes University, Paris*  
 Frank Geldard, *Princeton University*  
 J. Donald Harris, *Journal of Auditory Research, Groton*  
 Russ Harter, *University of North Carolina, Greensboro*  
 Ronald S. Harwerth, *College of Optometry, University of Houston*  
 Ira Hirsh, *Washington University*  
 Julian Hochberg, *Columbia University*  
 F. Nowell Jones, *University of California, Los Angeles*  
 Peter W. Jusczyk, *Dalhousie University*  
 John M. Kennedy, *University of Toronto*  
 Larry Kerr, *Ohio University*  
 Lester Krueger, *Ohio State University*  
 Ilse Lehist, *Ohio State University*  
 Lawrence E. Marks, *John B. Pierce Foundation Laboratory*  
 Curtis W. McIntyre, *Southern Methodist University*  
 Philip A. Morse, *University of Wisconsin—Madison*  
 John Morton, *MRC Applied Psychology Unit, Cambridge*  
 Conrad G. Mueller, *Indiana University at Bloomington*  
 Kate Murray, *University of California, Los Angeles*  
 William O'Hara, *University of Illinois at Urbana-Champaign*  
 Richard K. Olson, *University of Colorado*  
 Kevin O'Regan, *Centre Nationale de la Recherche Scientifique, Paris*  
 George Papcun, *University of California, Los Angeles*  
 Kenneth Papp, *New Mexico State University*  
 Robert Porter, *Louisiana State University Medical Center*  
 Michael I. Posner, *University of Oregon*  
 Robert B. Post, *Pennsylvania State University*  
 William Prinzmetal, *University of British Columbia*  
 Dean Purcell, *Oakland University*  
 Robert Remez, *Indiana University at Bloomington*  
 John Rohrbaugh, *University of California, Los Angeles*  
 James R. Sawusch, *SUNY, Buffalo*  
 Bertram Scharf, *Northeastern University*  
 Walter Schneider, *University of Illinois at Urbana-Champaign*  
 Linda B. Smith, *Indiana University at Bloomington*  
 Ewart A. C. Thomas, *Stanford University*  
 Willard R. Thurlow, *University of Wisconsin—Madison*  
 Hans Wallach, *Swarthmore College*  
 W. Dixon Ward, *University of Minnesota*  
 David Warren, *University of California, Riverside*  
 R. M. Warren, *University of Wisconsin—Milwaukee*  
 Gerald Wasserman, *Purdue University*  
 Daniel J. Weintraub, *University of Michigan*  
 Robert Welch, *University of Kansas*



# Perception & Psychophysics

**Charles W. Eriksen, Editor**  
*University of Illinois, Urbana-Champaign*

## *Associate Editors*

**Edward C. Carterette**  
*University of California, Los Angeles*  
**Robert Fox**  
*Vanderbilt University*  
**Alfred B. Kristofferson**  
*McMaster University*

**Herschel W. Leibowitz**  
*Pennsylvania State University*  
**David Pisoni**  
*Indiana University, Bloomington*  
**Martha Teghtsoonian**  
*Smith College*

## *Consulting Editors*

**Lorraine Allan, McMaster University**  
**John C. Baird, Dartmouth College**  
**William P. Banks, Pomona College**  
**Linda M. Bartoshuk, J. B. Pierce Foundation, Yale University**  
**Ira H. Bernstein, University of Texas, Arlington**  
**Elizabeth L. Bjork, University of California, Los Angeles**  
**Randolph Blake, Northwestern University**  
**John Lott Brown, University of South Florida**  
**Emanuel Donchin, University of Illinois, Champaign**  
**S. M. Ebenholtz, University of Wisconsin, Madison**  
**Howard E. Egeth, Johns Hopkins University**  
**Trygg Engen, Brown University**  
**William Epstein, University of Wisconsin, Madison**  
**Barbara A. Eriksen, University of Illinois, Champaign**  
**Wendell R. Garner, Yale University**  
**Barbara Gillam, SUNY, State College of Optometry**  
**Walter C. Gogel, University of California, Santa Barbara**

**Eugene R. Wist, University of Dusseldorf, W. Germany**

**David M. Green, Harvard University**  
**Lewis O. Harvey, Jr., University of Colorado**  
**James E. Hoffman, University of Delaware**  
**Tarow Indow, Keio University, Tokyo**  
**John Jonides, University of Michigan**  
**Ronald Kinchla, Princeton University**  
**Sylvan Kornblum, University of Michigan**  
**Joseph S. Lappin, Vanderbilt University**  
**Willard D. Larkin, University of Maryland**  
**Barry Leshowitz, Arizona State University**  
**Gregory R. Lockhead, Duke University**  
**Dominic Massaro, University of California, Santa Cruz**  
**James L. McClelland, University of California, San Diego**  
**W. Trammell Neill, University of South Florida**  
**Ray Over, University of Queensland, Australia**  
**Robert W. Sekuler, Northwestern University**  
**Keith White, University of Florida**

**Anne Matson Dossett**  
*Managing Editor*

## Volume 28

---

*Published monthly by*  
**THE PSYCHONOMIC SOCIETY, Inc.**, 2904 Guadalupe Street, Austin, Texas 78705  
*Publication No. 427920 (ISSN 0031-5117)*  
*Second Class Postage paid at Austin, Texas 78710*  
*Copyright 1980 and 1981 by THE PSYCHONOMIC SOCIETY, Inc.*

#### **STAFF IN CHAMPAIGN**

Gitta Bridges  
Carolyn M. Savage

#### **STAFF IN AUSTIN**

Lee Anne Aspra  
Valerie K. Foster  
Nancy Glass  
Dreanne M. Grenier  
Virginia T. Hagerty  
John J. Hartzell, Jr.  
E. Melanie W. Kittrell  
Patricia J. Kittrell  
Richard W. Lambert  
Mary K. Plowman  
Robert P. Sanford  
Sharon Tarver  
Roberta L. Thiessen  
William Walker  
Rodney G. Webre  
C. E. Wheelless



# CONTENTS OF VOLUME 28

Allan, L. G. See Hayman, C. A. G.	
Armitage, R. See Earhard, B.	
Bacharach, V. R. See Bashinski, H. S.	
Ballas, J. A. See Howard, J. H., Jr.	
Bashinski, H. S., & Bacharach, V. R. Enhancement of perceptual sensitivity as the result of selectively attending to spatial locations. . . . .	241
Beaton, R. J. See Long, G. M. (2)	
Bendix, J. S. See Malmstrom, F. V.	
Biederman, I. See Kriegman, D. H.	
Blank, M. A. Measuring lexical access during sentence processing . . . . .	1
Bowling, A., & Lovegrove, W. Response times to different spatial frequencies: Is there a 100-msec rule? . . . . .	599
Bregman, A. S., & Steiger, H. Auditory streaming and vertical localization: Interdependence of "what" and "where" decisions in audition . . . . .	539
Broerse, J., & Crassini, B. The influence of imagery ability on color aftereffects produced by physically present and imagined induction stimuli . . . . .	560
Butler, R. A., & Flannery, T. The spatial attributes of stimulus frequency and their role in monaural localization of sound in the horizontal plane . . . . .	449
Butler, R. A. See Musicant, A. D.	
Christensen, C. M. Effects of solution viscosity on perceived saltiness and sweetness . . . . .	347
Christensen, C. M. Effects of taste quality and intensity on oral perception of viscosity . . . . .	315
Corso, G. M. Auditory temporal order and perceived fusion-nonfusion . . . . .	465
Crassini, B. See Broerse, J.	
Cutting, J. E. See Proffitt, D. R.	
Czigler, I., & Tölgyesi, M. Changes in perceived contrast, reaction time, and pattern-specific evoked potentials due to stimulus duration . . . . .	458
Day, R. H., Stuart, G. W., & Dickinson, R. G. Size constancy does not fail below half a degree . . . . .	263
Day, R. H. See Rozvany, G. I. N.	
Degelman, D. See Rosinski, R. R.	
Deutsch, D. The processing of structured and unstructured tonal sequences. . . . .	381
Dickinson, R. G. See Day, R. H.	
Earhard, B. The line-in-object superiority effect in perception: It depends on where you fix your eyes and what is located at the point of fixation . . . . .	9
Earhard, B., & Armitage, R. From an object-superiority effect to an object-inferiority effect with movement of the fixation point . . . . .	369
Egeth, H. E. See Santee, J. L.	
Eriksen, C. W. The use of a visual mask may seriously confound your experiment . . . . .	89
Falk, D. S., & Williams, R. Dynamic visual noise and the stereophenomenon: Interocular time delays, depth, and coherent velocities. . . . .	19
Farber, J. See Rosinski, R. R.	
Favreau, O. E. Reply to Potts and Harris . . . . .	254
Flannery, R. See Butler, R. A.	
Flatt, A. E. See Kelso, J. A. S.	
Friedman, C. J. See Pastore, R. E.	
Friedman, R. B. Identity without form: Abstract representations of letters . . . . .	53
Frijters, J. E. R. Three-stimulus procedures in olfactory psychophysics: An experimental comparison of Thurstone-Ura and three-alternative forced-choice models of signal detection theory . . . . .	390
Gellman, L. H. See Girgus, J. S.	
Gilchrist, A. L. When does perceived lightness depend on perceived spatial arrangement? . . . . .	527
Girgus, J. S., Gellman, L. H., & Hochberg, J. The effect of spatial order on piecemeal shape recognition: A developmental study . . . . .	133
Godfrey, J. J. Comparison of consonantal and vocalic cues in selective adaptation . . . . .	103
Gogel, W. C. The sensing of retinal motion . . . . .	155
Gogel, W. C., & Tietz, J. D. Relative cues and absolute distance perception . . . . .	321
Goldstein, L. See Pastore, R. E.	
Goodman, D. A. See Zwislocki, J. J.	
Grant, K. W. See Sachs, R. M.	
Grosjean, F. Spoken word recognition processes and the gating paradigm . . . . .	267
Gruenenfelder, T. M., & Pisoni, D. B. Fundamental frequency as a cue to postvocalic consonantal voicing: Some data from speech perception and production . . . . .	514
Haft, E. R. See Johnson, D. M.	
Halpern, D. F., & Warm, J. S. The disappearance of real and subjective contours . . . . .	229
Handel, S., Imai, S., & Spottswood, P. Dimensional, similarity, and configural classification of integral and separable stimuli . . . . .	205
Handel, S., & Rhodes, J. W. Free classification: Element-level and subgroup-level similarity . . . . .	249
Harrington, M. K. See Harrington, T. L.	
Harrington, T. L., Harrington, M. K., Wilkins, C. A., & Koh, Y. O. Visual orientation by motion-produced blur patterns: Detection of divergence. . . . .	293
Harris, L. B. See Pastore, R. E. (2)	
Hayman, C. A. G., & Allan, L. G. A reevaluation of angle-contingent color aftereffects. . . . .	61
Held, R. See Wolfe, J. M.	
Henderson, L. Is there a lexicality component in the word superiority effect? . . . . .	179
Hochberg, J. See Girgus, J. S.	
Holt, K. G. See Kelso, J. A. S.	
Howard, J. H., Jr., & Ballas, J. A. Syntactic and semantic factors in the classification of nonspeech transient patterns . . . . .	431
Howell, E. R. See Stanley, G.	
Iaccino, J. See Milewski, A. E.	
Imai, S. See Handel, S.	
Jesteadt, W. An adaptive procedure for subjective judgments . . . . .	85
Johnson, D. M., & Haft, E. R. Uncertain-frequency detection: Cuing and condition of observation. . . . .	143

Jones, B. Algebraic models for integration of painful and nonpainful electric shocks .....	572	Osman, E., Tzuo, H., & Tzuo, P. L. Weber's law, the "near miss," and binaural detection .....	354
Kelso, J. A. S., Holt, K. G., & Flatt, A. E. The role of proprioception in the perception and control of human movement: Toward a theoretical reassessment .....	45	Owen, D. H. See Tei, B. E.	
Kerkhof, G. A., van der Schaaf, T. W., & Korving, H. J. Auditory signal detection: Effects of long-term practice and time on task .....	79	Parker, D. M. Simple reaction times to the onset, offset, and contrast reversal of sinusoidal grating stimuli .....	365
Kertesz, A. E. See Sabrin, H. W.		Parker, S., & Schneider, B. Loudness and loudness discrimination .....	398
Kettner, R. E., Shannon, R. V., Nguyen, T. M., & Thompson, R. F. Simultaneous behavioral and neural (cochlear nucleus) measurement during signal detection in the rabbit .....	504	Pastore, R. E., Harris, L. B., & Friedman, C. J. Contralateral auditory change masking .....	488
Koh, Y. O. See Harrington, T. L.		Pastore, R. E., Harris, L. B., & Goldstein, L. Auditory forward and backward masking interaction ..	547
Korving, H. J. See Kerkhof, G. A.		Pentland, A. Maximum likelihood estimation: The best PEST .....	377
Kriegman, D. H., & Biederman, I. How many letters in Bidwell's ghost? An investigation of the upper limits of full report from a brief visual stimulus ...	82	Pick, H. L., Jr. See Rieser, J. J.	
Krueger, L. E., & Shapiro, R. G. Repeating the target neither speeds nor slows its detection: Evidence for independent channels in letter processing .....	68	Pisoni, D. B. Adaptation of the relative onset time of two-component tones .....	337
Kunen, S., & May, J. G. Spatial frequency content of visual imagery .....	555	Pisoni, D. B. See Gruenenfelder, T. M.	
Lawry, J. A. The interfering effect of word perception on letter identification .....	577	Post, R. B. See Leibowitz, H. W.	
Leibowitz, H. W., Post, R. B., Rodemer, C. S., Wadlington, W. L., & Lundy, R. M. Roll vection analysis of suggestion-induced visual field narrowing	173	Proffitt, D. R., & Cutting, J. E. Perceiving the centroid of curvilinearly bounded rolling shapes .....	484
Lockman, J. J. See Rieser, J. J.		Randle, R. J. See Malmstrom, F. V.	
Long, G. M., & Beaton, R. J. The contribution of visual persistence to the perceived duration of brief targets .....	422	Reeves, A. Visual imagery in backward masking .....	118
Long, G. M., & Beaton, R. J. The effects of spatial frequency and target type on perceived duration ..	413	Reinhardt-Rutland, A. H. Two auditory aftereffects and their dependency on carrier frequency .....	569
Lovegrove, W. See Bowling, A.		Remole, A. A simple demonstration of border dominance in binocular rivalry .....	77
Lundy, R. M. See Leibowitz, H. W.		Repp, B. H. See Mann, V. A.	
Malmstrom, F. V., Randle, R. J., Bendix, J. S., & Weber, R. J. The visual accommodation response during concurrent mental activity .....	440	Rhodes, J. W. See Handel, S.	
Mann, V. A. Influence of preceding liquid on stop-consonant perception .....	407	Rieser, J. J., Lockman, J. J., & Pick, H. L., Jr. The role of visual experience in knowledge of spatial layout .....	185
Mann, V. A., & Repp, B. H. Influence of vocalic context on perception of the [f]-[s] distinction ....	213	Rodemer, C. S. See Leibowitz, H. W.	
May, J. G. See Kunen, S.		Rosinski, R. R., Mulholland, T., Degelman, D., & Farber, J. Picture perception: An analysis of visual compensation .....	521
Milewski, A. E., Iaccino, J., & Smith, D. Checkerboard-specific color aftereffects: A failure to find effects of perceptual organization .....	329	Rozvany, G. I. N., & Day, R. H. Determinants of the Bourdon effect .....	39
Miller, J. D. See Sachs, R. M.		Sabrin, H. W., & Kertesz, A. E. Microsaccadic eye movements and binocular rivalry .....	150
Miller, J. L. Contextual effects in the discrimination of stop consonant and semivowel .....	93	Sachs, R. M., Miller, J. D., & Grant, K. W. Perceived magnitude of multiple electrocutaneous pulses .....	255
Miller, R. J. Ocular vergence-induced accommodation and its relation to dark focus .....	125	Salis, D. L. Laterality effects with visual perception of musical chords and dot patterns .....	284
Mulholland, T. See Rosinski, R. R.		Santee, J. L., & Egeth, H. E. Selective attention in the speeded classification and comparison of multidimensional stimuli .....	191
Mulligan, R. M., & Shaw, M. L. Multimodal signal detection: Independent decisions vs. integration ..	471	Schneider, B. Individual loudness functions determined from direct comparisons of loudness intervals	493
Musicant, A. D., & Butler, R. A. Monaural localization: An analysis of practice effects .....	236	Schneider, B. See Parker, S.	
Nguyen, T. M. See Kettner, R. E.		Searle, C. L. See Shelton, B. R.	
Nolan, K. A. See Wingfield, A.		Shannon, R. V. See Kettner, R. E.	
Norman, J. Direct and indirect perception of size ...	306	Shapiro, R. G. See Krueger, L. E.	
O'Regan, J. K. The control of saccade size and fixation duration in reading: The limits of linguistic control .....	112	Shaw, M. L. See Mulligan, R. M.	
		Shelton, B. R., & Searle, C. L. The influence of vision on the absolute identification of sound-source position .....	589
		Smith, D. See Milewski, A. E.	
		Smith, G. See Stanley, G.	
		Smith, L. B. Development and the continuum of dimensional separability .....	164
		Spottswood, P. See Handel, S.	
		Stanley, G., Howell, E. R., & Smith, G. Stimulus	

duration and grating persistence: An instance of the 100-msec rule? .....	597	Wilkins, C. A. See Harrington, T. L.	
Steiger, H. See Bregman, A. S.		Williams, R. See Falk, D. S.	
Stuart, G. W. See Day, R. H.		Wingfield, A., & Nolan, K. A. Spontaneous segmentation in normal and in time-compressed speech .....	97
Tei, B. E., & Owen, D. H. Laterality differences in sensitivity to line orientation as a function of adaptation duration .....	479	Wolfe, J. M., & Held, R. Cyclopean stimulation can influence sensations of self-motion in normal and stereoblind subjects .....	139
Thompson, R. F. See Kettner, R. E.		Yelen, D. R. A catastrophe model for the effects of a response set on a discrimination task .....	177
Tietz, J. D. See Gogel, W. C.		Zwislocki, J. J., & Goodman, D. A. Absolute scaling of sensory magnitudes: A validation .....	28
Tolgyesi, M. See Czigler, I.			
Tzuo, H. See Osman, E.		Notices and Announcements	
Tzuo, P. L. See Osman, E.		Editorship nominations .....	96
van der Schaaf, T. W. See Kerkhof, G. A.		National Conference on the Use of On-Line Computers in Psychology .....	266
Wadlington, W. L. See Leibowitz, H. W.			
Wallace, B. Factors affecting proprioceptive adaptation to prismatic displacement .....	550		
Warm, J. S. See Halpern, D. F.			
Weber, R. J. See Malmstrom, F. V.			

## ACKNOWLEDGEMENTS

We would like to express our sincere thanks to the special consultants, listed below, who have given freely of their time and counsel.

- |  |  |
|--|--|
| Fred Attneave, <i>University of Oregon</i>   | Lester Krueger, <i>Ohio State University</i>                   |
| Michael Birnbaum, <i>University of Illinois</i>  | Lawrence E. Marks, <i>John B. Pierce Foundation Laboratory</i> |
| H. Bouma, <i>Institute for Perception Research, Eindhoven,</i><br><i>The Netherlands</i> | Donald McBurney, <i>University of Pittsburgh</i>               |
| Albert S. Bregman, <i>McGill University</i>  | George McConkie, <i>University of Illinois</i>                 |
| R. M. Butler, <i>University of Chicago</i>   | Dennis McFadden, <i>University of Texas, Austin</i>            |
| William Cain, <i>John B. Pierce Foundation Laboratory</i>                                | Curtis W. McIntyre, <i>Southern Methodist University</i>       |
| R. A. Cole, <i>Carnegie Mellon University</i>  | Richard E. Pastore, <i>SUNY, Binghamton</i>                    |
| D. V. Cross, <i>SUNY, Stony Brook</i>  | Irwin Pollack, <i>University of Michigan</i>                   |
| Raymond Daniloff, <i>Purdue University</i>   | Robert H. Pollack, <i>University of Georgia</i>                |
| J. B. Davies, <i>University of Strathclyde</i>   | E. Pugh, <i>University of Pennsylvania</i>                     |
| Diana Deutsch, <i>University of California, San Diego</i>                                | Keith Rayner, <i>University of Rochester</i>                   |
| Randy Diehl, <i>University of Texas, Austin</i>  | Robert E. Remez, <i>Barnard College</i>                        |
| Vincent DiLollo, <i>University of Manitoba</i>   | Bruno Repp, <i>Haskins Laboratories</i>                        |
| P. L. Divenyi, <i>VA Hospital, Martinez, California</i>                                  | Lorrin A. Riggs, <i>Brown University</i>                       |
| D. D. Dorfman, <i>University of Iowa</i>   | John Rohrbaugh, <i>UCLA</i>                                    |
| Hannes Eisler, <i>University of Stockholm</i>  | James R. Sawusch, <i>SUNY, Buffalo</i>                         |
| Gilmore Glover, <i>Case Western Reserve University</i>                                   | Walter Schneider, <i>University of Illinois</i>                |
| John D. Gould, <i>IBM, Yorktown Heights, New York</i>                                    | Roger N. Shepard, <i>Stanford University</i>                   |
| G. R. Grice, <i>University of New Mexico</i>   | Carl E. Sherrick, <i>Princeton University</i>                  |
| W. L. Gulick, <i>Hamilton College</i>  | Ewart A. C. Thomas, <i>Stanford University</i>                 |
| Eric Holman, <i>UCLA</i>   | Willard R. Thurlow, <i>University of Wisconsin</i>             |
| Ian P. Howard, <i>York University</i>  | Ann Treisman, <i>University of British Columbia</i>            |
| Larry Humes, <i>Vanderbilt University</i>  | C. W. Tyler, <i>Smith-Kettlewell Institute</i>                 |
| Walt Jesteadt, <i>Human Communications Lab, Omaha</i>                                    | Hans Wallach, <i>Swarthmore College</i>                        |
| Neal F. Johnson, <i>Ohio State University</i>  | David Warren, <i>University of California, Riverside</i>       |
| Peter W. Jusczyk, <i>Dalhousie University</i>  | R. M. Warren, <i>University of Wisconsin—Milwaukee</i>         |
| Lloyd Kaufman, <i>New York University</i>  | Gerald Wasserman, <i>Purdue University</i>                     |
| Diane Kewley-Port, <i>Indiana University</i>   | William Yund, <i>VA Center, Martinez, California</i>           |

